

=====

Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2007; month=11; day=29; hr=15; min=43; sec=27; ms=447; ]

=====

\*\*\*\*\*

Reviewer Comments:

<210> 3

<211> 822

<212> DNA

<213> Artificial Sequence

<220>

<223> Consensus sequence *Vibrio cholerae* gyrB

<400> 3

gtmtccggyg gtctgcacgg ggtagggtgtg tcggtgggta acgcgctytc tgaaaaagtg	60
ctrctyacca tytatcggyg yggcaaratc caywscscaa cttaccatca tgggtgtgcca	120
caagcacctg tggctgtrgt rggtgakacw gagcgtaccg gtactaccgt acgtttctgg	180
ccwagygcac aracytttac caatatcgaa ttycattacg acattttggc taaacgcctg	240
cgtgagctgt cattcctgaa ytctggcgtg tcgatcaagc tgaycgatga acgtgaagaa	300
gataaaaaag accacttcat gtatgaaggg ggtattcaag cgtttgtgac ccacttgaac	360
cgyaayaaaa cgccratcca tgagaaagtc ttccacttta accaagagcg tgaagatggc	420
atcagcgtgg aagtggcrat gcagtggaay gatgggtttcc aagaaaacat ctactgcttt	480
acyaacaaca tcccacagcg tgatgggtgg acccayttag ccgggtttccg tgggtgcgttg	540
accgtactt tgaacaacta yatggayaaa gaaggcttct cgaagaaagc scaagcggca	600

acctcgggtg atgatgcgcg tgaaggctta acggcwggtg twtcggtgaa agtgccggat 660  
cctaaattct cragccaaac caaagataag ctggtttctt cggaagtaaa atccgcrgtt 720  
gartcagcya tgaatgagaa gctggcrgat ttcctagcgg aaaaccaag cgaagcgaaa 780  
aacgtttggt cgaagattat tgatgcrgcr cgygckcgtg aagcsgcgcg taaagcccgk 840  
gaaatgactc gycgtaaagg cgcgytgat cttgcwggct taccc 885

Although the above <211> response is "822," 885 nucleotides are in this sequence.

\*\*\*\*\*

Application No: 10538636 Version No: 2.0

Input Set:

Output Set:

Started: 2007-11-12 17:56:12.731  
Finished: 2007-11-12 17:56:14.101  
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 370 ms  
Total Warnings: 64  
Total Errors: 1  
No. of SeqIDs Defined: 64  
Actual SeqID Count: 64

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
E 253	The number of bases differs from <211> Input: 822 Calculated:885
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)

**Input Set:**

**Output Set:**

**Started:** 2007-11-12 17:56:12.731  
**Finished:** 2007-11-12 17:56:14.101  
**Elapsed:** 0 hr(s) 0 min(s) 1 sec(s) 370 ms  
**Total Warnings:** 64  
**Total Errors:** 1  
**No. of SeqIDs Defined:** 64  
**Actual SeqID Count:** 64

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (20) This error has occurred more than 20 times, will not be displayed

# SEQUENCE LISTING

<110> KOIZUMI, Takeshi  
NISHIYAMA, Yoko  
YAMAMOTO, Satoshi  
FUKUYAMA, Masafumi  
FURUHATA, Katsunori  
OONAKA, Kenji

<120> PRIMER AND PROBE FOR DETECTING VIBRIO CHOLERAE OR VIBRIO MIMICUS  
AND DETECTION METHOD USING THE SAME

<130> Q88467

<140> 10538636  
<141> 2005-06-10

<150> PCT/JP03/15889  
<151> 2003-12-11

<150> JP 2002-362878  
<151> 2002-12-13

<160> 64

<170> PatentIn version 3.3

<210> 1  
<211> 885  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Consensus sequence of Vibrio Cholerae and Vibrio mimicus gyrB

<400> 1  
gtmtccggyg gtctrcacgg ggtaggtgtg tcggtrgtka aygcsctbtc wgaaaaagtg 60  
ctrctbacca tytatcgygg yggcaaraty caywscaaa cttaccatca ygggtgtgcca 120  
caagcaccgt tgkctgtrgt rggtgakacw gagcgtaccg gtactaccgt acgtttcttg 180  
ccwagygcac aracytttac caatatcgaa ttycattacg acattytgge taaacgyctg 240  
cgtgagctgt cattcctgaa ytctggcgtg tcgatcaagc tgaysgatga rcgtgaagaa 300  
gataaaaaag accacttyat gtatgaaggk ggtattcaag cgtttgtkac ccacttgaac 360  
cgyaayaaaa cgccratcca tgaraaagtm ttccacttya accaagagcg tgaagatggc 420  
atcagcgtgg aagtggcrat gcagtggaay gatgggttcc aagaaaacat ctactgcttt 480  
acyaacaaca tyccacagcg tgatggyggg acccayttag cygggtttccg tgggtgcrttg 540  
accgtactt tgaacaacta yatggayaaa gaaggcttct cgaagaaagc scaagcrgca 600

acctcgggtg atgatgcgcg tgaaggctta acrgcdgtkg tdtcggtgaa agtrccrgat	660
cctaaattct cragccaaac caaagataag ctrgtttctt cggargtraa atccgcrgtt	720
gartcagcya tgaatgagaa gctggcrgat ttcctrgcgg aaaaccaag cgaagcgaaa	780
aacgtttgtt cgaagattat tgatgcrgrc cghgckcgtg aagcvgcgcg taaagcmcgk	840
gaaatgacyc gycgtaaagg cgcgytrgay ythgcwgggt trcch	885

<210> 2

<211> 822

<212> DNA

<213> Artificial Sequence

<220>

<223> Consensus sequence of Vibrio cholerae and vibrio mimicus rpoD

<400> 2

acacgtgaag gygaaatcga tattgccaaag cgcattgaag atggtattaa ccaagttcaa	60
agtgcgattg ctgagtatcc tggaaccatc ccwtayattc ttgarcagtt tgaymrkgtt	120
caggcmgaag arctacgtct sactgayctg atttcwgggt tcgttgaycc taacgacatg	180
gaaaccgaag cgccaacygc kactcacatc ggttcwgarc tytctgaagc sgatctcgck	240
gatgaagatg aygmkgtcgy sgargatgaa gacgargatg aagaygaaga yggcgacggt	300
gaaagyagcg acagcgaaga agaagtsggg atygacctg arctsgctcg tgagaaattc	360
aatgaactgc gcggyaagtt ccaaaacctg caattagcgg ttaatgaatt tggtcgtgac	420
agtmaycaag cwtctgaagc ktcarrcytr gtrytgata tyttccgyga attccgycta	480
acaccaaarc aattygacca yttggttgaa actctgcgya cytcratgga tcgtgttcgy	540
accaagarc gyttggtrat gaaagcvgr gtggaagtcg cgaaratgcc raagaaatcr	600
ttyatygcyc trtttacagg caatgaatcg aatgargart ggctbgataa agtvctyget	660
tctgayaarc ctaygtasm raaagtmcgt gagcaagaag amgakatycg ccgytcaaty	720
caraaactdc aratgatcga rcargagacw tcaactgtctg ttgarcgyat caaagacatc	780
agccgtcgta tgtcwatcgg tgargcraaa gctcgccgtg cg	822

<210> 3

<211> 822

<212> DNA

<213> Artificial Sequence

<220>

<223> Consensus sequence Vibrio cholerae gyrB

<400> 3

gtmtccggyg gtctgcacgg ggtaggtgtg tcggtggtta acgcgctytc tgaaaaagtg	60
ctrctyacca tytatacgygg yggcaaratc caywscaaa cttaccatca tgggtgtgcca	120
caagcaccgt tggctgtrgt rggtgkakcw gagcgtaccg gtactaccgt acgtttcttg	180
ccwagygcac aracytttac caatatcgaa ttycattacg acattttggc taaacgcctg	240
cgtgagctgt cattcctgaa ytctggcgtg tcgatcaagc tgaycgatga acgtgaagaa	300
gataaaaaag accacttcat gtatgaaggg ggtattcaag cgtttgtgac ccacttgaac	360
cgyaayaaaa cgccratcca tgagaaagtc ttccacttta accaagagcg tgaagatggc	420
atcagcgtgg aagtggcrat gcagtggaay gatggtttcc aagaaaacat ctactgcttt	480
acyaacaaca tcccacagcg tgatggtggg acccayttag ccggtttccg tgggtgcgttg	540
acccgacttt tgaacaacta yatggayaaa gaaggcttct cgaagaaagc scaagcggca	600
acctcgggtg atgatgcgcg tgaaggctta acggcwggtg twtcggtgaa agtgccggat	660
cctaaattct cragccaaac caaagataag ctggtttctt cggaagtaa atccgcrgtt	720
gartcagcya tgaatgagaa gctggcrgat ttcctagcgg aaaaccaag cgaagcgaaa	780
aacgtttgtt cgaagattat tgatgcrgrc cgygckcgtg aagcsgcgcg taaagcccgk	840
gaaatgactc gycgtaaagg cgcgytggtat ctgwcggct tacc	885

<210> 4

<211> 822

<212> DNA

<213> Artificial Sequence

<220>

<223> Consensus sequence of *Vibrio cholerae* rpoD

<400> 4

acacgtgaag gtgaaatcga tattgccaaag cgcattgaag atggtattaa ccaagttcaa	60
agtgcgattg ctgagtatcc tggaaccatc ccttatatcc ttgagcagtt tgatcgtgtt	120
caggccgaag agctacgtct cactgacctg atttcagggt tcggtgaycc taacgacatg	180
gaaaccgaag cgccaaccgc gactcacatc ggttctgagc tttctgaagc ggatctcgcg	240
gatgaagatg atgctgtcgt cgaagatgaa gacgaagatg aagacgaaga tggcgacggt	300
gaaagcagcg acagcgaaga agaagtcggt atcgacctg aactggctcg tgagaaattc	360
aatgaactgc gcggyaagtt ccaaaacctg caattagcgg ttaatgaatt tggtcgtgac	420
agtcatcaag cttctgaagc gtcagactta gtgytgata tcttccgtga attccgycta	480

acaccaaagc aattcgacca cttggttgaa actctgcgca cttcaatgga tcgtgttcgc	540
acccaagaac gtttggttat gaaagcggta gttgaagtcg cgaagatgcc gaagaaatcg	600
ttcatcgccc tatttacagg caatgaatcg aatgaagagt ggctggataa agtccttgct	660
tctgacaagc cttacgtagc gaaagtcggt gagcaagaag aagagatccg ccgttcaatt	720
cagaaactac aaatgatcga gcaagagaca tcactgtctg ttgaacgcat caaagacatc	780
agccgtcgta tgtcaatcgg tgaggcraaa gtcgcgcgtg cg	822

<210> 5

<211> 885

<212> DNA

<213> Artificial Sequence

<220>

<223> Consensus sequence of *Vibrio mimicus* gyrB

<400> 5

gtctccggtg gtctacacgg ggtaggtgtg tcggtagtga atgccctgtc agaaaaagtg	60
ctgctbacca tttatcgtgg tggcaagatt cacacccaaa cttaccatca cgggtgtgcca	120
caagcaccgt tgtctgtrgt gggtagagact gagcgtaccg gtactaccgt acgtttctgg	180
cctagtgcac agactttttac caatatcgaa ttccattacg acattctggc taaacgycgt	240
cgtgagctgt cattcctgaa ctctggcgtg tcgatcaagc tgacggatga gcgtgaagaa	300
gataagaaaag accacttyat gtatgaaggt ggtattcaag cgtttgtkac ccacttgaac	360
cgtaayaaaa cgccgatcca tgaaaaagta ttccacttca accaagagcg tgaagatggc	420
atcagcgtgg aagtggcaat gcagtggaac gatggtttcc aagaaaacat ctactgcttt	480
accaacaaca tyccacagcg tgatggcggg acccacttag cyggtttccg tggtgcrttg	540
accggtactt tgaacaacta catggacaaa gaaggettct cgaagaaagc scaagcrgca	600
acctcgggtg atgatgcgcg tgaaggctta acrgcrgtkg tktcggtgaa agtrccrgat	660
cctaaattct cragccaaac caaagataag ctrgtttctt cggargtgaa atccgcggtt	720
gagtcagcca tgaatgagaa gctggcggat ttcttggcgg aaaaccaag cgaagcgaaa	780
aacgtttgtt cgaagattat tgatgcrgrc cghgctcgtg aagcvgcgcg taaagcacgt	840
gaaatgacyc gtcgtaaagg cgcgctagay ytmgctgggt tgccw	885

<210> 6

<211> 822

<212> DNA

<213> Artificial Sequence



<220>

<223> Consensus sequence of *Vibrio mimicus* rpoD

<400> 6

acacgtgaag gcgaaatcga tattgccaaag cgcattgaag atggtattaa ccaagttcaa	60
agtgcgattg ctgagtatcc tggaaccatc ccatacatte ttgaacagtt tgacaaggtt	120
caggcagaag aactacgtct gactgayctg atttctgggt tcgttgatcc taacgacatg	180
gaaaccgaag cgccaactgc tactcacatc ggttcagarc tctctgaagc cgatctcgct	240
gatgaagatg acgaggtcgc ggaggatgaa gacgaggatg aagatgaaga cggcgacggt	300
gaaagyagcg acagcgaaga agaagtgggt attgaccctg agctcgctcg tgagaaatc	360
aatgaactgc gcggcaagtt ccaaaacctg caattagcgg ttaatgaatt tggtcgtgac	420
agtaaccaag catctgaagc ttcaagcctg gtactggata tyttccgcga attccgccta	480
acacccaaaac aatttgacca tttggttgaa actctgcgta cctcgatgga tcgtgttcgt	540
acccaagagc gyttggtgat gaaagcvgtg gttgaagtcg cgaaaatgcc aaagaaatca	600
tttattgcyc trtttacagg caatgaatcg aatgargaat ggctygataa agtrctcgct	660
tctgataarc cttatgtaca aaaagtacgt gagcaagaag acgatattcg ccgctcaatc	720
caaaaactkc agatgatcga acargagact tcaactgtctg ttgagcgtat caaagacatc	780
agccgtcgta tgtctatcgg tgaagcgaaa gctcgccgtg cg	822

<210> 7

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 7

tycaywcsca aacttacca	19
----------------------	----

<210> 8

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 8

gaaytctggc gtgtcgatca ag	22
--------------------------	----

<210> 9  
<211> 22  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 9  
catrtagttg ttcaaagtac gg 22

<210> 10  
<211> 25  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 10  
ggatttyacy tccgaagaaa cyagc 25

<210> 11  
<211> 19  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 11  
ygccagcttc tcattcatr 19

<210> 12  
<211> 19  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 12  
cgcttcgctt gggttttcc 19

<210> 13  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer

<400> 13  
caataatctt cgaacaaacg t 21

<210> 14  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 14  
gattgctgag tatcctggaa ccatc 25

<210> 15  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 15  
gaycctaacg acatggaaac c 21

<210> 16  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 16  
ttcwgarcy tctgaagcs 19

<210> 17  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 17  
agatgaygmk gtcgysgar 19

<210> 18  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer  
  
<400> 18  
cgacggtgaa agyagcgaca g 21

<210> 19  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer  
  
<400> 19  
caatgaactg cgcggyaagt t 21

<210> 20  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer  
  
<400> 20  
gtcacgacca aattcattaa c 21

<210> 21  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer  
  
<400> 21  
gyytgamgt tcagawgctt grtka 25

<210> 22  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer  
  
<400> 22  
ygargtrcgc agagtttcaa cc 22

<210> 23  
<211> 19

<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 23  
catyaccaar cgytcttgg 19

<210> 24  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 24  
cgytcaacag acagtgawgt c 21

<210> 25  
<211> 19  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 25  
ggtggttaac gcgctytct 19

<210> 26  
<211> 23  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 26  
ycgatgaacg tgaagaagat aaa 23

<210> 27  
<211> 19  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> primer  
  
<400> 27  
tgagaaagtc ttccacttt 19

<210> 28  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 28  
gttaaagtgg aagactttc 19

<210> 29  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 29  
gggtaagccw gcaagatcc 19

<210> 30  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 30  
attcttgagc agtttgatcg t 21

<210> 31  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 31  
caggccgaag agctacgtct c 21

<210> 32  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 32  
tgagctttct gaagcggatc tcgcg 25

<210> 33  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 33  
gaagatgatg ctgtcgtcga a 21

<210> 34  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 34  
gaagatgaag acgaagat 18

<210> 35  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 35  
cggtatcgac cctgaactg 19

<210> 36  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 36  
catcaagctt ctgaagcgtc aga 23

<210> 37  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer  
  
<400> 37  
tcaaccaagt ggtcgaattg c 21

<210> 38  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer  
  
<400> 38  
acggaagata tccarcacta a 21

<210> 39  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer  
  
<400> 39  
gcgaacacga tccattgaag tg 22

<210> 40  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer  
  
<400> 40  
gatgaacgat ttcttcggca tc 22

<210> 41  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer  
  
<400> 41  
aaggacttta tccagccac 19

<210> 42  
<211> 24



<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	primer	
<400>	42	
	ttctttcttgc tcacggactt tcgc	24
<210>	43	
<211>	21	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	primer	
<400>	43	
	ttctgaattg aacggcggat c	21
<210>	44	
<211>	22	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	primer	
<400>	44	
	tgtctcttgc tcgatcattt gt	22
<210>	45	
<211>	19	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	primer	
<400>	45	
	ggtagtgaat gccctgtca	19
<210>	46	
<211>	23	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	primer	
<400>	46	
	cggatgagcg tgaagaagat aag	23

<210> 47  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 47  
tgaaaaagta ttccacttc 19

<210> 48  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 48  
gttgaagtgg aatactttt 19

<210> 49  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 49  
wggcaaacca gckarrtct 19

<210> 50  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 50  
cattcttgaa cagtttgaca ag 22

<210> 51  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 51  
caggcagaag aactacgtct g 21

<210> 52  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 52  
agarctctct gaagccgac tcgct 25

<210> 53  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 53  
gaagatgacg aggtcgcgga g 21

<210> 54  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 54  
gaggatgaag atgaagac 18

<210> 55  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 55  
gggtattgac cctgagctc 19

<210> 56  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
 <223> primer  
  
 <400> 56  
 taaccaagca tctgaagctt caag 24  
  
 <210> 57  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 57  
 tcaaccaaatt ggtcaaattg t 21  
  
 <210> 58  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 58  
 gcggaarata tccagtacca g 21  
  
 <210> 59  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 59  
 acgaacacga tccatcgagg ta 22  
  
 <210> 60  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> primer  
  
 <400> 60  
 aataaatgat ttctttggca tt 22  
  
 <210> 61  
 <211> 19

<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 61  
gagyacttta tcragccat 19

<210> 62  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> primer

<400> 62  
gtcttcttgc tcacgtactt ttg 24

<210> 63  
<211> 19  
<212> DNA  
<213>